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Peter B. Evans

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FENWICK & WEST LLP  
SILICON VALLEY CENTER  
801 CALIFORNIA STREET  
MOUNTAIN VIEW, CA 94041

EXAMINER

LO, SUZANNE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* PETER B. EVANS and STEVEN E. SCHUMER

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Appeal 2009-013225  
Application 10/666,209  
Technology Center 2100

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Decided: April 21, 2010

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Before JOSEPH L. DIXON, ST. JOHN COURTENAY III, and  
STEPHEN C. SIU, *Administrative Patent Judges*.

SIU, *Administrative Patent Judge*.

DECISION ON APPEAL  
STATEMENT OF THE CASE

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-14, 19, and 20. Claims 15-18 have been withdrawn. We have jurisdiction under 35 U.S.C. § 6(b). An oral hearing was conducted on April 14, 2010.

We reverse.

*The Invention*

The disclosed invention relates generally to a method for analyzing power systems (Spec. 21, ¶ [0085]).

Independent claim 1 is illustrative:

1. A method for simulating an electric power network having a plurality of transmission-level buses and connected electrical elements and a plurality of distribution-level buses and connected electrical elements, the method comprising:

determining a model of the transmission-level buses and connected electrical elements, the model of the transmission-level buses including a plurality of transmission lines and a plurality of transmission electrical elements;

determining a model of the distribution-level buses and connected electrical elements, the model of the distribution-level buses including a plurality of distribution lines and a plurality of distribution electrical elements;

generating a single mathematical model by integrating the model of the transmission-level buses with the model of the distribution-level buses, wherein the single mathematical model further models the interdependency of the plurality of transmission lines and the plurality of transmission electrical elements included in the model of the transmission level buses and the plurality of distribution lines and the plurality of distribution electrical elements included in the model of the distribution-level buses;

simulating an operation of the electrical power network with the single mathematical model; and

outputting data describing the simulated electric power network.

*The Reference*

The Examiner relies upon the following reference as evidence in support of the rejections:

Optimal Technologies, *Operations Review of June 14, 2000 PG&E Bay Area System Events Using Aempfast® Software*, October 3, 2001 (“Optimal”).

*The Rejection*

The Examiner rejects claims 1-14, 19, and 20 under 35 U.S.C. § 102(a) as being anticipated by Optimal.

ISSUE

Appellants assert that Optimal fails to disclose “generating a single mathematical model by integrating the model of the transmission-level buses with the model of the distribution-level buses” (App. Br. 7).

Did the Examiner err in finding that Optimal discloses generating a model by integrating the model of the transmission-level buses with the model of the distribution-level buses?

## FINDINGS OF FACT

The following Findings of Facts (FF) are shown by a preponderance of the evidence.

1. Optimal discloses a “proprietary . . . network optimization software to perform a detailed review of conditions on [an] . . . electric power system” (pg. 5).
2. Optimal discloses that Aempfast “tightly and simultaneously links optimization of the subject system . . . with full and comprehensive measurement of system resources . . . at each and every bus of the system” (pg. 13).
3. Optimal discloses “Aempfast can also be applied to optimize an entire power network . . . [including] transmission and distribution lines” (pg. 13).
4. Optimal discloses “addition of strategic resources” (pg. 17).
5. Optimal discloses “conversion of EPC datasets to the CWF format” and comparison of “the CWF output to the original EPC dataset to detect any possible conversion errors” (pg. 16).

## PRINCIPLES OF LAW

### *35 U.S.C. § 102*

In rejecting claims under 35 U.S.C. § 102, “[a] single prior art reference that discloses, either expressly or inherently, each limitation of a

claim invalidates that claim by anticipation.” *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1375 (Fed. Cir. 2005) (citation omitted).

### ANALYSIS

As set forth above, Optimal discloses a software program for analyzing a power system (FF 1) including “every bus of the system” (FF 2) and “transmission and distribution lines” (FF 3). While Optimal appears to disclose analyzing a power system (including both transmission and distribution lines) using a software program, we do not find, and the Examiner has not demonstrated that Optimal also discloses each of determining a transmission-level model, determining a distribution-level model, and integrating the transmission-level and distribution-level models to generating a single model. Rather, the Examiner has merely demonstrated that Optimal discloses analyzing a power system that includes transmission and distribution lines.

Independent claims 1, 2, 10, and 19 each recite similar features. Accordingly, we conclude that the Examiner erred in rejecting independent claims 1, 2, 10, and 19, and claims 3-9, 11-14, and 20, which depend therefrom.

### CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that the Examiner erred in finding that Optimal discloses generating a model by

Appeal 2009-013225  
Application 10/666,209

integrating the model of the transmission-level buses with the model of the distribution-level buses.

### DECISION

We reverse the Examiner's decision rejecting claims 1-14, 19, and 20 under 35 U.S.C. § 102(a).

REVERSED

msc

FENWICK & WEST LLP  
SILICON VALLEY CENTER  
801 CALIFORNIA STREET  
MOUNTAIN VIEW, CA 94041